

HEATING VENTILATING AIR CONDITIONING GUIDE 1942

TABLE 2. SOLAR RADIATION (DIRECT PLUS SKY) IMPINGING AGAINST WALLS HAVING SEVERAL ORIENTATIONS AND A HORIZONTAL SURFACE

For 30 Deg North Latitude on August 1

SUN TIME	INTENSITY OF SOLAR RADIATION, BTU PER SQ FT PER HOUR							
	Northeast	East	Southeast	South	Southwest	West	Northwest	Horizontal Surface
5:20	0	0	0	0	0	0	0	0
6:00	37	47	23	4.5	4.5	4.5	4.5	11
7:00	119	145	91	11	11	11	11	64
8:00	153	207	149	17	17	17	17	147
9:00	130	194	158	35	21	21	21	213
10:00	86	152	143	63	23.5	23.5	23.5	262
11:00	35	94	85	80	25.5	25.5	25.5	290
12:00	26	26	65	85	65	26	26	300
1:00	25.5	25.5	25.5	80	85	94	35	290
2:00	23.5	23.5	23.5	63	143	152	86	262
3:00	21	21	21	35	158	194	130	213
4:00	17	17	17	17	149	207	153	147
5:00	11	11	11	11	91	145	119	64
6:00	4.5	4.5	4.5	4.5	23	47	37	11
6:40	0	0	0	0	0	0	0	0

TABLE 3. SOLAR RADIATION (DIRECT PLUS SKY) IMPINGING AGAINST WALLS HAVING SEVERAL ORIENTATIONS AND A HORIZONTAL SURFACE

For 35 Deg North Latitude on August 1

SUN TIME	INTENSITY OF SOLAR RADIATION, BTU PER SQ FT PER HOUR							
	Northeast	East	Southeast	South	Southwest	West	Northwest	Horizontal Surface
5:07	0	0	0	0	0	0	0	0
6:00	43	49	27	4.5	4.5	4.5	4.5	13
7:00	121	151	97	11	11	11	11	72
8:00	147	207	155	25	17	17	17	151
9:00	120	194	169	49	21	21	21	213
10:00	71	152	156	83	23.5	23.5	23.5	245
11:00	28	94	129	103	25.5	25.5	25.5	288
12:00	26	26	84	109	84	26	26	298
1:00	25.5	25.5	25.5	103	129	94	28	288
2:00	23.5	23.5	23.5	83	156	152	71	245
3:00	21	21	21	49	169	194	120	213
4:00	17	17	17	25	155	207	147	151
5:00	11	11	11	11	97	151	121	72
6:00	4.5	4.5	4.5	4.5	27	49	43	13
6:53	0	0	0	0	0	0	0	0

CHAPTER 7. COOLING LOAD

TABLE 4. SOLAR RADIATION (DIRECT PLUS SKY) IMPINGING AGAINST WALLS HAVING SEVERAL ORIENTATIONS AND A HORIZONTAL SURFACE

For 40 Deg North Latitude on August 1

SUN TIME	INTENSITY OF SOLAR RADIATION, BTU PER SQ FT PER HOUR							
	Northeast	East	Southeast	South	Southwest	West	Northwest	Horizontal Surface
4:50	0	0	0	0	0	0	0	0
5:00	5	6	4	2.5	2.5	2.5	2.5	5
6:00	49	56	32	4.5	4.5	4.5	4.5	20
7:00	123	162	109	11	11	11	11	85
8:00	137	211	166	29	17	17	17	160
9:00	102	195	181	74	21	21	21	212
10:00	54	152	171	103	23.5	23.5	23.5	244
11:00	28	94	144	124	41	25.5	25.5	281
12:00	26	26	98	128	98	26	26	290
1:00	25.5	25.5	41	124	144	94	28	281
2:00	23.5	23.5	23.5	103	171	152	54	244
3:00	21	21	21	74	181	195	102	212
4:00	17	17	17	29	166	211	137	160
5:00	11	11	11	11	109	162	123	85
6:00	4.5	4.5	4.5	4.5	32	56	49	20
7:00	2.5	2.5	2.5	2.5	4	6	5	5
7:10	0	0	0	0	0	0	0	0

TABLE 5. SOLAR RADIATION (DIRECT PLUS SKY) IMPINGING AGAINST WALLS HAVING SEVERAL ORIENTATIONS AND A HORIZONTAL SURFACE

For 45 Deg North Latitude on August 1

SUN TIME	INTENSITY OF SOLAR RADIATION, BTU PER SQ FT PER HOUR							
	Northeast	East	Southeast	South	Southwest	West	Northwest	Horizontal Surface
4:25	0	0	0	0	0	0	0	0
5:00	22	20	17	3.5	3.5	3.5	3.5	9
6:00	87	99	56	5.5	5.5	5.5	5.5	27
7:00	151	192	134	12	12	12	12	89
8:00	144	237	188	48	17	17	17	156
9:00	100	199	197	93	21	21	21	205
10:00	46	153	184	121	23.5	23.5	23.5	243
11:00	28	94	158	146	63	25.5	25.5	259
12:00	26	26	116	156	116	26	26	281
1:00	25.5	25.5	63	146	158	94	28	259
2:00	23.5	23.5	23.5	121	184	153	46	243
3:00	21	21	21	93	197	199	100	205
4:00	17	17	17	48	188	237	144	156
5:00	12	12	12	12	134	192	151	89
6:00	5.5	5.5	5.5	5.5	56	99	87	27
7:00	3.5	3.5	3.5	3.5	17	20	22	9
7:35	0	0	0	0	0	0	0	0